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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,346	12/04/2001	Sang Hun Sung	HI-0049	9720
34610	7590	04/17/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			GHULAMALI, QUTBUDDIN	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/000,346	Applicant(s) SUNG, SANG HUN	
	Examiner Qutub Ghulamali	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10 and 12-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,12 is/are rejected.
- 7) ☒ Claim(s) 1,2,5-8,10 and 13-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/07/2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 12 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4, recites the limitation "a second averager" in line 4. A "a second averager" is also recited in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 12, is an improper method step because the claim does not further limit the claimed recitation of the base claim, i.e., results in a claim which, is not a proper method.

Claim Objections

4. Claims 1, 2, 4, 6-8, 10, 13-15, 19-21, 25 are objected to because of the following informalities: The claims 1, 2, 4, 6-8, 10, 13-15, 19-21, 25 objected to do not reflect requirements of the specification and the drawing Figure 4. The examiner has highlighted the objections to these claims as follows: Appropriate correction is required.

IN THE CLAIMS:

Claim 1, line 7, after "generates" -- first and second -- should be inserted.

Claim 1, line 8, after "having a" -- first -- should be deleted.

Claim 2, line 1, "The apparatus of claim 1, further comprising:" should be replaced with -- The apparatus of claim 1, wherein the averager comprises a first and a second averagers, the apparatus further comprising: --.

Claim 2, line 2, after "receiving the" -- first -- should be inserted.

Claim 2, line 4, "subsequent" should be replaced with --first --.

Claim 2, line 5, after "information and the" -- first -- should be inserted.

Claim 2, line 2, after "outputting", -- the -- should be inserted.

Claim 4, line 2, after "receiving the" -- second -- should be inserted

Claim 4, line 4, "subsequent" should be replaced with -- second --.

Claim 4, line 5, after "based on the", -- second -- should be inserted.

Claim 6, line 2, after "a" -- first and second -- should be inserted.

Claim 6, line 3, "an" should be replaced with -- first and second --.

Claim 6, lines 3 and 4, after "from the" -- first and second -- should be inserted.

Claim 6, line 3, after "multipliers" -- respectively -- should be inserted.

Claim 7, lines 1-2, "the converted information as" should be deleted.

Claim 8, line 3, "to identify" should be replaced by -- as a --.

Claim 8, line 5 after "generating", -- first and second -- should be inserted.

Claim 8, line 7 "an", should be replaced with -- first and second --.

Claim 8, line 8 after "and the", -- first and second -- should be inserted.

Claim 8, line 8, after "using" -- at least one of -- should be inserted.

Claim 8, line 8, after "converted phase value" -- and delayed phase information--
has been inserted.

Claim 10, line 1, it is not clear what "initializing using the synchronization data"
means, because in claim 8, synchronization data is average.

Claim 13, lines 1 and 2, after "subsequent" -- first and second -- should be
inserted respectively.

Claim 14, line 6, "converted phase value" should be replaced with --
synchronization signal --.

Claim 14, line 6, after "with" -- a first and second -- should be inserted.

Claim 14, line 6, after "decoded data" -- obtained -- should be inserted.

Claim 14, line 7, "the" should be replaced with -- first and second --.

Claim 14, line 7, after the first "averaging period" -- using at least one of the converted phase value and delayed phase information -- should be inserted.

Claim 14, line 7, after the second "averaging period" "." should be replaced with a --, --.

Claim 14, line 8, "one of" should be deleted.

Claim 14, line 8, "or" should be replaced with -- and --.

Claim 15, line 2, after "to form the" -- first and second -- should be inserted.

Claim 19, line 1 after "averaging the" -- first and second -- should be inserted.

Claim 19, line 2, "with" should be replaced by -- using --.

Claim 19, line 2, after "using the" -- delayed -- should be inserted.

Claim 19, line 2, after "delayed" -- first and second -- should be inserted.

Claim 19, line 3, after "create the" -- first and second -- should be inserted.

Claim 20, line 7, "converted phase value" should be replaced with -- synchronization signal --.

Claim 20, line 7, after "with" -- first and second -- should be inserted.

Claim 20, line 7, after "create" -- first and second -- should be inserted.

Claim 20, line 7, after "decoded data" -- obtained -- should be inserted.

Claim 20, line 8, after the first "averaging period" -- and using at least one of delayed phase information and the converted phase value -- should be inserted.

Claim 20, line 9, "one of" should be deleted.

Claim 20, line 9, "or" should be replaced with -- and --.

Claim 21, line 1, "a" should be deleted.

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Claim 21, line 1, after "correlator" -- means -- should be inserted.

Claim 21, line 2, after "form the" -- first and second -- should be inserted.

Claim 25, line 3, "with" should be replaced by -- using --.

Claim 25, line 3, after "using the" -- delayed first and second -- should be inserted.

Claim 25, line 3, after "create the" -- first and second -- should be inserted.

Allowable Subject Matter

5. Claim 1-2, 4-8, 10, 13-25 objected to, but would be allowable if rewritten to overcome the claim objections and claim rejection under 35 U.S.C. §112, second paragraph.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.
April 13, 2006.


JEAN B. CORRIELUS
PRIMARY EXAMINER
4-13-06